UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/595,990	05/24/2006	Shlomo Gotman	PHUS030467US2	1431

38107   7590   09/29/2009

PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P. O. Box 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER
SEREBOFF, NEAL

ART UNIT	PAPER NUMBER
3626	

MAIL DATE	DELIVERY MODE
09/29/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *9/8/2009*.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *3,5,9,11-18,22 and 25-36* is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *3,5,9,11-18,22 and 25-36* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a) ☐ All   b) ☐ Some * c) ☐ None of:

       1. ☐ Certified copies of the priority documents have been received.

       2. ☐ Certified copies of the priority documents have been received in Application No. _____.

       3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____ .

DETAILED ACTION

Response to Amendment

1.   In the amendment dated 9/8/2009, the following has occurred: Claims 3, 5, 11, 12 – 18,

and 22 have been amended; Claims 2, 4, 6 – 8 and 19 – 21 have been canceled.

2.   Claims 1, 10, 23 and 24 were previous canceled.

3.   Claims 3, 5, 9, 11 – 18, 22 and 25 – 36 are pending.

Notice to Applicant

4.   This is a second final rejection. The Examiner introduced a 35 U.S.C. 112, 2nd

paragraph rejection in the Office Action dated 7/7/2009 that was not necessitated by amendment.

The Applicant has amended the claims and those 35 U.S.C. 112, 2nd paragraph rejections have

been withdrawn.

5.   The text of those sections of Title 35, U.S. Code not included in this action can be found

in a prior Office action.

6.   In the action dated 1/23/2009, the Examiner requested information regarding the current

state of the art as described within the Applicant's specification. Although the Applicant's

response was in accordance with the request, the Examiner notes that the Assignee to the instant

Applicant's invention is Philips Electronics. Philips Electronics manufactured a DICOM

compliant CT workstation more than 1 year before the instant application. Please see the 35

U.S.C. 102(b) rejection below for further comments.

Claim Rejections - 35 USC § 101

7.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or
> any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and
> requirements of this title.

8.   Claim 22 is rejected under 35 U.S.C. 101 because the claimed invention is directed to

non-statutory subject matter.

Claim 22 is rejected under 35 U.S.C. 101 based on Supreme Court precedent, and recent Federal

Circuit decisions, a § 101 process must (1) be tied to a machine (such as a particular apparatus)

or (2) transform underlying subject matter (such as an article or materials) to a different state or

thing. In re Bilski, F.3d , 88 U.S.P.Q.2d 1385 (2008). Diamond v. Diehr, 450 U.S. 175, 184 (1981);

Parker v. Flook, 437 U.S. 584, 588 n.9 (1978); Gottschalk v. Benson, 409 U.S. 63, 70 (1972);

Cochrane v. Deener, 94 U.S. 780,787-88 (1876). The process steps in claim 22 is not tied to a

machine nor do they execute a transformation. Thus, it is non-statutory.

Claim Rejections - 35 USC § 112

9.   Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for

failing to particularly point out and distinctly claim the subject matter which applicant regards as

the invention. The Applicant has amended the preamble of the claim to be, "The system as set

forth in claim 3, wherein the scanner is a CT scanner and the interface automatically selects

optimization parameters of an x-ray source of the CT scanner based on the selected protocol to

correct:" It is not clear now whether the Applicant intended the entire preamble to be the

intended use of the selected data or whether the preamble was meant to impart functionality.

The previous iteration of claim 11 required particular structure for the claimed data. The

Examiner understands the preamble to be the intended use of the claim.

Claim Rejections - 35 USC § 102

10.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11.   ***Claims 2 – 9, 11 – 22 and 25 – 36*** are rejected under 35 U.S.C. 102(b) based upon a

public use or sale of the invention.

12.   The claimed invention is directed toward an imaging system, or as defined within the art

as a DICOM Workstation, (Philips Medical Systems, DICOM Conformance Statement).

13.   An issue of public use or on sale activity has been raised in this application. In order for

the examiner to properly consider patentability of the claimed invention under 35 U.S.C. 102(b),

additional information regarding this issue is required as follows:

In particular, Philips has produced an EasyVision series of DICOM compliant workstations that

have the following features (DICOM EasyVision DX 8.2 Conformance Statement):

There are differences between the EasyVision versions DX, CL, RG and Home, regarding DICOM and other, non-DICOM functionality. The Matrix below gives an overview of which (DICOM) functionality will be supported by which EasyVision version.

Table 1.   Functionality Matrix

EasyVision DICOM Functionality MATRIX	EasyVision DX	EasyVision CL	EasyVision RG	EasyVision Home
Merges PACS Worklist and RIS information in one view	✓	✓	✓	✓
Printing images to Postscript printer	✓	✓	✓	✓
Adjustable window width and level at image view	✓	✓	✓	✓
Pre defined grayscale settings at image view	✓	✓	✓	✓
Supports viewing a majority of available DICOM SOP Classes at image view	✓	✓	✓	✓
Zoom and window width and level at Multi-frame view	✓	✓	✓	✓
Creation of static Worklist	✓	✓	✓	✓
DICOM Q/R	✓	✓	✓	✓
DICOM Modality Worklist	✓	✓	✓	✓
Dynamic Worklist to quickly find examinations	✓	✓	✓	✓
Personalized Worklist	✓	✓	✓	✓
Image calibration	✓		✓	✓
Remove series of examinations	✓		✓	✓
Remove examinations	✓		✓	✓
View DICOM header information	✓		✓	✓
DICOM Print Management SCU	✓		✓	✓

The Examiner does not have a Philips EasyVision manual or data sheet and therefore cannot compare the specific features of the Philips EasyVision worksheet to the Applicant's claims. Therefore, in order to show that the Applicant's instant application is different than the Philips EasyVision workstation, a manual of <u>at least</u> EasyVision 8.2 is requested.

Applicant is reminded that failure to fully reply to this requirement for information will result in a holding of abandonment.

14.   ***Claims 3, 5, 13 are*** rejected under 35 U.S.C. 102(b) as being anticipated by Debbins et

al., Pre-Grant Publication 2002/ 0060566.

15.   As per claim 3, Debbins teaches a medical diagnostic imaging system for acquiring

images of a patient, the imaging system being coupled to a hospital network which hospital

network includes a hospital database which stores patient data including patient images, and a

plurality of hospital computers, the imaging system comprising:

- A scanner which scans the patient using a selected examination protocol to generate

    image data (figure 1);

- A scanner control which controls the scanner (paragraph 24), the scanner control being

    coupled to the scanner and the hospital network (paragraph 26 and paragraph 98), the

    scanner control including:

    o A display (Figure 1, #42 or #12),

    o An applications database which is configurable by a user (figure 1, #44 and

        paragraphs 35 – 37), and

    o An interface which causes the display to display interactive user interface screens

        on the display (figure 1, #12 or #42 and paragraph 35), which user interface

        screens allow the user

        - To configure the applications database (paragraphs 64 where the user

            selects the application),

        - Enter a examination protocols (paragraphs 33 – 35 where the operator

            makes adjustments), and

- Interactively control the scanner by activating icons and buttons displayed thereon (figure 4 and paragraphs 83 and 84);

o An examination protocol database which stores a plurality of examination protocols (paragraph 80);

o A computer programmed to:

- Choose a limited number of selectable examination protocols from among the plurality of examination protocols stored in the examination protocol database (paragraphs 81 – 84 where limited is some reduction in the infinite potential available protocols) in response to

  - Receiving the patient's limiting parameters one of entered by the user into data entry fields displayed on the user interface screens,

    o From the hospital database, or

    o From a remote terminal (paragraphs 29 – 31 including patient prescription), and

  - Displaying the chosen examination protocols on the display from which the user selects the selected examination protocol such that the user is limited to selecting only among chosen examination protocols chosen by the protocol selection means (figure 6 where the displayed protocols are nonfunctional descriptive information. The step of selecting a protocol and performing the defined action is not claimed).

16.   As per claim 5, Debbins teaches the system of claim 3 as described above. Debbins

further teaches the system further including:

- A post-processor which automatically commences post-processing during data

  acquisition in accordance (paragraphs 9, 78, 79) with

    o types and formats of images commonly generated with the selected examination

       protocol (paragraphs 9, 94), or

    o patient's limiting parameters entered by the user into data entry fields to generate

       patient images (paragraph 80).

17.   As per claim 13, Debbins teaches the system of claim 5 as described above. Debbins

further teaches the system wherein the computer is further programmed to:

- Choose the selectable examination protocols in accordance from examination protocols

  that were used for previous examinations and were previously stored in the hospital

  database of the patient to generate the patient images (paragraphs 9, 78 – 80 and 94).

18.   *Claim 22* is rejected under 35 U.S.C. 102(e) as being anticipated by Berger et al., U.S.

Pre-Grant Publication 2004/ 0015079.

As per claim 22, Okerlund teaches a method of optimizing a throughput of a diagnostic image

processing system comprising the steps of:

- Storing a plurality of the examination protocols in an application database in a hospital

  network (paragraphs 34, 217, 271 – 273 and 452, presets and where the protocols or

  rules are the histograms);

- Entering the patient limiting parameters into the application database prior to scanning

  the patient (paragraph 273, anatomical structure or paragraph 452, optimized for probe);

- Matching the patient limiting parameters with one or more optimal examination protocols

  stored in the application database (paragraph 273, where levels are adjusted to match or

  paragraph 452, probe selection);

- Displaying a list of the one or more optimal examination protocols for the scanning of the

  patient in response to the results of the matching (paragraph 452, t-shirt where the

  displayed information is non-functional);

- Displaying the list to the user to use in selecting the examination protocol to be used in

  the patient information (paragraph 452, t-shirt where the displayed information is non-

  functional).

Claim Rejections - 35 USC § 103

19.   *Claim 9* is rejected under 35 U.S.C. 103(a) as being unpatentable over Debbins et al.,

U.S. Pre-Grant Publication 2002/ 0060566 in view of Bitter et al., U.S. Pre-Grant Publication

2005/ 0228250 and Wright et al., U.S. Patent 6,004,276.

20.   As per claim 9, Debbins teaches the system of claim 3 as described above.

Debbins does not explicitly teach the system wherein the post-processing means includes:

- A visualization configuration means for searching the hospital database for visualization

  parameter preferences of a diagnosing radiologist and adjusting level, zoom, slice and

  slab thickness, windowing, and other visualization parameters in accordance with the

  diagnosing radiologist's preferences from the hospital database.

However, Wright further teaches the system wherein the post-processing means includes:

- A visualization configuration means for searching the hospital database (column 20, line 47 through column 21, line 3, where the search is a login) in accordance with the diagnosing radiologist's preferences from the hospital database (column 63, lines 36 -55).

However, Bitter further teaches the system wherein the post-processing means includes:

- A visualization configuration means for visualization parameter preferences of a diagnosing radiologist and adjusting level (paragraph 38, level adjustment), zoom (paragraph 38, zooming), slice and slab thickness (paragraph 49, user controls and paragraph 61, thickness), windowing (paragraph 38, window adjustment), and other visualization parameters (paragraphs 38 – 49).

It would have been obvious to one of ordinary skill in the art at the time of the invention to add these features into Debbins. One of ordinary skill at the time of the invention would have added these features

- The elements are all known but not combined as claimed. The technical ability exists to combine the elements as claimed and the results of the combination are predictable. When combined, the elements perform the same function as they did separately.
- With the motivation to display medical images and enable user interaction with the medical images (Bitter, paragraph 7).
- With the motivation to allow the user to access the product specific functionality delineated in the appropriate product specification (Wright, column 63, lines 36 -55).

21.   ***Claim 11*** is rejected under 35 U.S.C. 103(a) as being unpatentable over Debbins et al.,

U.S. Pre-Grant Publication 2002/ 0060566 in view of Penner et al., U.S. Patent 6,431,175.

22.   As per claim 11, Debbins teaches the system of claim 3 as described above.

Debbins does not explicitly teach the system wherein the scanner is a CT scanner and the

interface automatically selects optimization parameters of an x-ray source of the CT scanner

based on the selected protocol to correct:

- o Voltage supplied to the CT scanner x-ray source,

- o Amperage supplied to the CT scanner x-ray source, and

- o An x-ray dose supplied to the patient.

However, Penner further teaches the wherein the scanner is a CT scanner and the interface

automatically selects optimization parameters of an x-ray source of the CT scanner based on the

selected protocol to correct:

- o Voltage supplied to the CT scanner x-ray source (column 18, lines 33 – 40 and
     column 20, lines 15 - 23),

- o Amperage supplied to the CT scanner x-ray source (column 18, lines 33 – 40 and
     column 20, lines 15 – 23 where amperage is a measure of electric power), and

- o An x-ray dose supplied to the patient (Abstract).

It would have been obvious to one of ordinary skill in the art at the time of the invention to add

these features into Debbins. One of ordinary skill at the time of the invention would have added

these features

- The elements are all known but not combined as claimed. The technical ability exists to combine the elements as claimed and the results of the combination are predictable. When combined, the elements <u>perform the same function as they did separately</u>.

- With the motivation to greatly increase the healing efficacy of the radiation treatment while at the same time, greatly decreasing the chance of inflicting damage to healthy tissues (Panner, column 16, lines 23 - 36).

23.   ***Claims 12, 14 and 18*** are rejected under 35 U.S.C. 103(a) as being unpatentable over Debbins et al., U.S. Pre-Grant Publication 2002/ 0060566 in view of Agfa, "Informatics – IMPAX DS3000).

24.   As per claim 12, Debbins teaches the system of claim 5 as described above. Debbins does not explicitly teach the system wherein the computer is further programmed to:

- <u>Search the hospital database for previous images of the patient and automatically send the previous images to a diagnosing physician's hospital computer without waiting for a transfer request from the physician.</u>

However, Agfa further teaches the system wherein the computer is further programmed to:

- Search the hospital database for previous images of the patient and automatically send the previous images to a diagnosing physician's hospital computer without waiting for a transfer request from the physician (IMPAC DS3000 Diagnostic Display Station).

It would have been obvious to one of ordinary skill in the art at the time of the invention to add these features into Debbins. One of ordinary skill at the time of the invention would have added these features

- The elements are all known but not combined as claimed. The technical ability exists to combine the elements as claimed and the results of the combination are predictable. When combined, the elements <u>perform the same function as they did separately.</u>

- With the motivation to create high a degree of workflow automation so that when the radiologist needs to review images or results, they are readily available (Agfa, IMPAC DS3000 Diagnostic Display Station).

25.   As per claim 14, Debbins in view of Agfa teaches the system of claim 12 as described above.

Debbins does not explicitly teach the system

- <u>wherein the current images generated using the selected examination protocol are generated by a different imaging modality than the previous images and</u>

- <u>wherein the computer is further programmed to automatically register and display the previous and current images at the physician's computer.</u>

However, Agfa, further teaches the system

- wherein the current images generated using the selected examination protocol are generated by a different imaging modality than the previous images (Familiar "Look and Feel" where documents are stored in a variety of formats and further IMPAC DS3000 Diagnostic Display Station where the data is displayed as multi-modality data. The choice of whether to make the previous image a different modality than the current image is therefore a matter of selection from a choice of multiple modalities) and

- wherein the computer is further programmed to automatically register and display the previous and current images at the physician's computer (Agfa, IMPAC DS3000 Diagnostic Display Station).

It would have been obvious to one of ordinary skill in the art at the time of the invention to add these features into Debbins. One of ordinary skill at the time of the invention would have added these features

- The elements are all known but not combined as claimed. The technical ability exists to combine the elements as claimed and the results of the combination are predictable. When combined, the elements perform the same function as they did separately.

- With the motivation to create high a degree of workflow automation so that when the radiologist needs to review images or results, they are readily available (Agfa, IMPAC DS3000 Diagnostic Display Station).

26.   As per claim 18, Debbins teaches the system of claim 3 as described above. Debbins, as understood, further teaches the system including:

- A remote, portable computer (paragraph 25, where there are 4 servers and a workstation);

Debbins does not explicitly teach the system

- Wherein at the beginning of a scan procedure, the interface automatically uploads the selected examination protocol from the remote portable computer.

However, Agfa, as understood, further teaches the system

- Wherein at the beginning of a scan procedure, the interface automatically uploads the selected examination protocol from the remote computer (Agfa, IMPAC DS3000 Diagnostic Display Station).

It would have been obvious to one of ordinary skill in the art at the time of the invention to add these features into Debbins. One of ordinary skill at the time of the invention would have added these features

- The elements are all known but not combined as claimed. The technical ability exists to combine the elements as claimed and the results of the combination are predictable. When combined, the elements perform the same function as they did separately.

- With the motivation to create high a degree of workflow automation so that when the radiologist needs to review images or results, they are readily available (Agfa, IMPAC DS3000 Diagnostic Display Station).

In addition, Debbins in view of Agfa do not teach the system where the computer is portable. However, making a computer portable or stationary is a prima facie design choice. The design choice is made in view of U.S. Patent 4,181,347, Mobile computerized tomography unit.

27.   *Claim 15* is rejected under 35 U.S.C. 103(a) as being unpatentable over Debbins et al., U.S. Pre-Grant Publication 2002/ 0060566 in view of Argiro et al. U.S. Patent Number 5,986,662.

28.   As per claim 15, Debbins teaches the system of claim 3 as described above. Debbins does not explicitly teach the system wherein the computer is further programmed to:

- merge image slices acquired by the scanner into slabs of selected thickness which is

  interactively supplied by the user, displaying the slabs, and separating slabs selected by

  the operator back into their constituent individual slices for display to the user.

However, Argiro further teaches the system wherein the computer is further programmed to:

- merge image slices acquired by the scanner into slabs of selected thickness which is

  interactively supplied by the user, displaying the slabs on the display, and separating

  slabs selected by the operator back into their constituent individual slices for display to

  the user on the display (column 14, lines 33 – 63 or column 23, lines 23 – 33).

It would have been obvious to one of ordinary skill in the art at the time of the invention to add

this feature into Debbins. One of ordinary skill in the art at the time of the invention would have

added this feature into Debbins

- The elements are all known but not combined as claimed. The technical ability exists to

  combine the elements as claimed and the results of the combination are predictable.

  When combined, the elements perform the same function as they did separately.

- with the motivation to permit a user to see through unimportant features of a slice to

  structures of interest farther in (Argiro, column 23, lines 23 - 33).

The display of images on a screen is considered non-functional descriptive information. How

those images are displayed is a matter of design choice in that the images may be integral,

separable, duplicated and re-arranged.

29.   *Claims 16 and 17* are rejected under 35 U.S.C. 103(a) as being unpatentable over

Debbins et al., U.S. Pre-Grant Publication 2002/ 0060566 in view of Koritzinsky et al., U.S.

Patent Number 6,272,469.

30.   As per claim 16, Debbins teaches the system of claim 3 as described above.

Debbins does not explicitly teach the system wherein the computer is further programmed to:

- <u>collect the entered patient's limiting parameters, scanner running time, examination protocols used and other scan information for each scanned patient, and generating a digital log book.</u>

However, Koritzinsky further teaches the system wherein the computer is further programmed to:

- collect the entered patient's limiting parameters, scanner running time, examination protocols used and other scan information for each scanned patient, and generating a digital log book (column 9, lines 46 – 64 where the data stored in the log file is non-functional descriptive information and the means is a data storage device).

It would have been obvious to one of ordinary skill in the art at the time of the invention to add this feature into Debbins. One of ordinary skill in the art at the time of the invention would have added this feature into Debbins

- The elements are all known but not combined as claimed. The technical ability exists to combine the elements as claimed and the results of the combination are predictable. When combined, the elements <u>perform the same function as they did separately.</u>

- with the motivation to have information for servicing of particular diagnostic systems and for tracking such servicing, as well as for deriving comparison data for use in servicing a particular system or a family of systems (Koritzinsky, column 6, lines 24 - 49).

31.   As per claim 17, Debbins in view of Koritzinsky teaches the system of claim 16 as described above.

Debbins does not explicitly teach the system including:

- A processor programmed to remotely access and mine the digital log book to provide statistical analysis for optimizing scanner use.

However, Koritzinsky further teaches the system including:

- A processor programmed to remotely access and mine the digital log book to provide statistical analysis for optimizing scanner use (column 20, lines 11 – 26 where the means is software and remote may either be a remotely executed location or a web browser or a remotely storage of the software from the historical data. Additionally, the statements following, "to provide" are the intended use of the statistics and therefore do not have patentable weight).

It would have been obvious to one of ordinary skill in the art at the time of the invention to add this feature into Debbins. One of ordinary skill in the art at the time of the invention would have added this feature into Debbins

- The elements are all known but not combined as claimed. The technical ability exists to combine the elements as claimed and the results of the combination are predictable. When combined, the elements perform the same function as they did separately.

- with the motivation to have information for servicing of particular diagnostic systems and for tracking such servicing, as well as for deriving comparison data for use in servicing a particular system or a family of systems (Koritzinsky, column 6, lines 24 - 49).

32.   ***Claim 25*** is rejected under 35 U.S.C. 103(a) as being unpatentable over Debbins et al.,

U.S. Pre-Grant Publication 2002/ 0060566 in view of Vosniak et al., U.S. Pre-Grant Publication

2005/ 0020898.

33.   As per claim 25, Debbins teaches the system of claim 3 as described above.

Debbins does not explicitly teach the system

*   wherein the patient's limiting parameters include patient size, patient age, a radiologist

    identification, radiologist preferences, and a nature and region of the patient to be

    scanned.

However, Vosniak further teaches the system

*   wherein the patient's limiting parameters include patient size, patient age, a radiologist

    identification, radiologist preferences, and a nature and region of the patient to be

    scanned (paragraph 31).

It would have been obvious to one of ordinary skill in the art at the time of the invention to add

this feature into Debbins. One of ordinary skill in the art at the time of the invention would have

added this feature into Debbins

*   The elements are all known but not combined as claimed. The technical ability exists to

    combine the elements as claimed and the results of the combination are predictable.

    When combined, the elements perform the same function as they did separately.

*   with the motivation to display the patient list on the display of the workstation (Vosniak

    paragraph 32).

34.   ***Claim 26*** is rejected under 35 U.S.C. 103(a) as being unpatentable over Vosniak et al.,

U.S. Pre-Grant Publication 2004/ 0020898 in view of Robarts et al., U.S. Patent 7,073,129.

35.   As per claim 26, Vosniak teaches a medical diagnostic imaging system coupled to a

hospital network, which hospital network interconnects a hospital archive database, computers,

computer displays, and a diagnostic scanner which scans a patient using a selected examination

protocol, the medical diagnostic imaging system including:

- A display device (figure 1, #15); and

- A computer programmed (paragraph 19) to:

    o   Select a limited number of examination protocols from a menu of available

        protocols in accordance with entered patient size, patient age, radiologist

        identification, radiologist preferences, and a nature and region of the patient to be

        scanned (paragraph 31 – 40), and generating an operator interactive display on the

        display device of the limited number of examination protocols (paragraph 33, 1

        protocol, the display), such that a user selects the selected examination protocol to

        be used to scan the patient from the limited number of display examination

        protocols (paragraph 33, the selection is limited to the one displayed. In addition,

        the displayed protocols are nonfunctional descriptive information. The step of

        selecting a protocol and performing the defined action is not claimed addition).

Vosniak does not explicitly teach the step of,

- generating an operator interactive display on the display device of the limited number of

    examination protocols.

However, limiting the number of protocols is a matter of protocol filtering,

- generating an operator interactive display on the display device of the limited number of examination protocols (column 7, line 56 through column 8, line 5 where user options are limited by context based rules).

It would have been obvious to one of ordinary skill in the art at the time of the invention to add this feature into Vosniak. One of ordinary skill in the art at the time of the invention would have added this feature into Vosniak

- The prior art teaches a <u>known technique that is applicable to the base device</u>.

- Those in the art would have recognized applying the known technique would have yielded an improvement and was predictable.

36.   **Claim 27** is rejected under 35 U.S.C. 103(a) as being unpatentable over Vosniak et al., U.S. Pre-Grant Publication 2004/ 0020898 in view of Robarts et al., U.S. Patent 7,073,129 as applied to claim 26 above, further in view of Debbins et al., U.S. Pre-Grant Publication 2002/ 0060566.

37.   As per claim 27, Vosniak in view of Robarts teaches the system of claim 26 as described above.

Vosniak in view of Robarts does not explicitly teach the system wherein the computer is further programmed to:

- <u>Automatically, without user instructions, commence post-processing during data acquisition in accordance with types and format of images most commonly generated for the selected examination protocol.</u>

Debbins further teaches the system wherein the computer is further programmed to:

- Automatically, without user instructions, commence post-processing during data acquisition in accordance with types and format of images most commonly generated for the selected examination protocol (paragraphs 9, 94).

It would have been obvious to one of ordinary skill in the art at the time of the invention to add this feature into Vosniak in view of Robarts. One of ordinary skill in the art at the time of the invention would have added this feature into Vosniak in view of Robarts

- The elements are all known but not combined as claimed. The technical ability exists to combine the elements as claimed and the results of the combination are predictable. When combined, the elements perform the same function as they did separately.

- With the motivation to provide data processing steps for image reconstruction that can be graphically modified in real time to modify or improve both collected and visualized data (Debbins, paragraph 9).

38.   *Claim 28* is rejected under 35 U.S.C. 103(a) as being unpatentable over Vosniak et al., U.S. Pre-Grant Publication 2004/ 0020898 in view of Robarts et al., U.S. Patent 7,073,129 as applied to claim 26 above, further in view of Penner et al., U.S. Patent 6,431,175.

39.   As per claim 28, Vosniak in view of Robarts teaches the system of claim 26 as described above.

Vosniak in view of Robarts does not explicitly teach the system wherein the scanner is a CT scanner and the computer is further programmed to:

- Optimize a tube voltage and tube current for an x-ray source of the CT scanner in accordance with an operated selected protocol.

However, Penner further teaches the system wherein the scanner is a CT scanner and the

interface includes:

- Optimize a tube voltage (column 18, lines 33 – 40 and column 20, lines 15 - 23) and tube

    current (column 18, lines 33 – 40 and column 20, lines 15 – 23 where amperage is a

    measure of electric power) for an x-ray source of the CT scanner in accordance with an

    operated selected protocol (column 9, lines 34 – 41).

It would have been obvious to one of ordinary skill in the art at the time of the invention to add

these features into Vosniak in view of Robarts. One of ordinary skill at the time of the invention

would have added these features

- The elements are all known but not combined as claimed. The technical ability exists to

    combine the elements as claimed and the results of the combination are predictable.

    When combined, the elements <u>perform the same function as they did separately</u>.

- With the motivation to greatly increase the healing efficacy of the radiation treatment

    while at the same time, greatly decreasing the chance of inflicting damage to healthy

    tissues (Panner, column 16, lines 23 - 36).

40.   ***Claims 29 and 35*** are rejected under 35 U.S.C. 103(a) as being unpatentable over

Vosniak et al., U.S. Pre-Grant Publication 2004/ 0020898 in view of Robarts et al., U.S. Patent

7,073,129 as applied to claim 26 above, further in view of Agfa, "Informatics – IMPAX

DS3000).

41.   As per claim 29, Vosniak in view of Robarts teaches the system of claim 26 as described

above.

Vosniak in view of Robart does not explicitly teach the system wherein the computer is further

programmed to:

- Search the hospital archive database for images of the patient currently undergoing

  examination and routing the archive patient images directly to the display terminal of a

  diagnosing radiologist, automatically without waiting for a transfer request.

However, Agfa further teaches the system wherein the computer is further programmed to:

- Search the hospital archive database for images of the patient currently undergoing

  examination and routing the archive patient images directly to the display terminal of a

  diagnosing radiologist, automatically without waiting for a transfer request (IMPAC

  DS3000 Diagnostic Display Station).

It would have been obvious to one of ordinary skill in the art at the time of the invention to add

these features into Vosniak in view of Robart. One of ordinary skill at the time of the invention

would have added these features

- The elements are all known but not combined as claimed. The technical ability exists to

  combine the elements as claimed and the results of the combination are predictable.

  When combined, the elements perform the same function as they did separately.

- With the motivation to create high a degree of workflow automation so that when the

  radiologist needs to review images or results, they are readily available (Agfa, IMPAC

  DS3000 Diagnostic Display Station).

42.   As per claim 35, Vosniak in view of Robarts teaches the system of claim 26 as described above.

35. The medical diagnostic imaging system as set forth in claim 26,

Vosniak in view of Robart does not explicitly teach the system wherein the computer is further programmed to:

- At the beginning of a scan procedure, automatically upload examination protocol information previously submitted from a remote computer or PDA.

However, Agfa, as understood, further teaches the system wherein the computer is further programmed to:

- At the beginning of a scan procedure, automatically upload examination protocol information previously submitted from a remote computer or PDA (Agfa, IMPAC DS3000 Diagnostic Display Station).

It would have been obvious to one of ordinary skill in the art at the time of the invention to add these features into Vosniak in view of Robart. One of ordinary skill at the time of the invention would have added these features

- The elements are all known but not combined as claimed. The technical ability exists to combine the elements as claimed and the results of the combination are predictable. When combined, the elements perform the same function as they did separately.

- With the motivation to create high a degree of workflow automation so that when the radiologist needs to review images or results, they are readily available (Agfa, IMPAC DS3000 Diagnostic Display Station).

43.   *Claim 30 is* rejected under 35 U.S.C. 103(a) as being unpatentable over Vosniak et al.,

U.S. Pre-Grant Publication 2004/ 0020898 in view of Robarts et al., U.S. Patent 7,073,129 as

applied to claim 26 above, further in view of Wright et al., U.S. Patent 6,004,276.

44.   As per claim 30, Vosniak in view of Robarts teaches the system of claim 26 as described

above.

Vosniak in view of Robart does not explicitly teach the system wherein the computer is further

programmed to:

*   Search the hospital archive database to determine if a current scan is a follow-up scan,

    determine parameters and examination protocols used in prior scans, and set the scanner

    to conduct the follow-up examination using the same parameters and examination

    protocols.

However, Wright further teaches the system wherein the computer is further programmed to:

*   Search the hospital archive database to determine if a current scan is a follow-up scan,

    determine parameters and examination protocols used in prior scans, and set the scanner

    to conduct the follow-up examination using the same parameters and examination

    protocols (column 1, line 66 through column 2, line 6).

It would have been obvious to one of ordinary skill in the art at the time of the invention to add

these features into Vosniak in view of Robart. One of ordinary skill at the time of the invention

would have added these features

*   The elements are all known but not combined as claimed. The technical ability exists to

    combine the elements as claimed and the results of the combination are predictable.

    When combined, the elements perform the same function as they did separately.

- With the motivation to allow the user to access the product specific functionality delineated in the appropriate product specification (Wright, column 63, lines 36 -55).

45.   ***Claim 31 is*** rejected under 35 U.S.C. 103(a) as being unpatentable over Vosniak et al., U.S. Pre-Grant Publication 2004/ 0020898 in view of Robarts et al., U.S. Patent 7,073,129 as applied to claim 26 above, further in view of Bitter et al., U.S. Pre-Grant Publication 2005/ 0228250.

46.   As per claim 31, Vosniak in view of Robarts teaches the system of claim 26 as described above.

Vosniak in view of Robart does not explicitly teach the system wherein the computer is further programmed to:

- Search the hospital archive database to determine preferences of a diagnosing radiologist and adjust level, zoom, slice and slab thicknesses, windowing, and other display characteristics in accordance with the retrieved preferences of the diagnosing radiologist.

However, Bitter further teaches the system wherein the computer is further programmed to:

- Search the hospital archive database to determine preferences of a diagnosing radiologist and adjust level (paragraph 38, level), zoom (paragraph 38, zooming), slice and slab thickness (paragraph 49, user controls and paragraph 61, thickness), windowing (paragraph 38, window adjustment), and other display characteristics in accordance with the retrieved preferences of the diagnosing radiologist (paragraph 38 and 89).

It would have been obvious to one of ordinary skill in the art at the time of the invention to add these features into Debbins. One of ordinary skill at the time of the invention would have added these features

- The elements are all known but not combined as claimed. The technical ability exists to combine the elements as claimed and the results of the combination are predictable. When combined, the elements <u>perform the same function as they did separately</u>.

- With the motivation to display medical images and enable user interaction with the medical images (Bitter, paragraph 7).

47.   ***Claim 32 is*** rejected under 35 U.S.C. 103(a) as being unpatentable over Vosniak et al., U.S. Pre-Grant Publication 2004/ 0020898 in view of Robarts et al., U.S. Patent 7,073,129 as applied to claim 26 above, further in view of Argiro et al. U.S. Patent Number 5,986,662.

48.   As per claim 32, Vosniak in view of Robarts teaches the system of claim 26 as described above.

Vosniak in view of Robart does not explicitly teach the system wherein the computer is further programmed to:

- <u>Merge groups of slice images into a smaller number of slab images, sequentially display the slab images, and display the individual slice images corresponding to each slab image designated by a diagnosing radiologist</u>.

However, Argiro further teaches the system wherein the computer is further programmed to::

- Merge groups of slice images into a smaller number of slab images, sequentially display the slab images, and display the individual slice images corresponding to each slab image designated by a diagnosing radiologist (column 23, lines 23 – 33, thickness slider).

It would have been obvious to one of ordinary skill in the art at the time of the invention to add this feature into Koritzinsky. One of ordinary skill in the art at the time of the invention would have added this feature into Koritzinsky

- The elements are all known but not combined as claimed. The technical ability exists to combine the elements as claimed and the results of the combination are predictable. When combined, the elements <u>perform the same function as they did separately</u>.

- with the motivation to permit a user to see through unimportant features of a slice to structures of interest farther in (Argiro, column 23, lines 23 - 33).

49.   ***Claims 33 and 34 are*** rejected under 35 U.S.C. 103(a) as being unpatentable over Vosniak et al., U.S. Pre-Grant Publication 2004/ 0020898 in view of Robarts et al., U.S. Patent 7,073,129 as applied to claim 26 above, further in view of Koritzinsky et al., U.S. Patent Number 6,272,469.

50.   As per claim 33, Vosniak in view of Robarts teaches the system of claim 26 as described above.

Vosniak in view of Robart does not explicitly teach the system wherein the computer is further programmed to:

- <u>Generate a series of prompts to an operator to lead the operator sequentially through an imaging procedure</u>.

However, Koritzinsky further teaches the system wherein the computer is further programmed to:

- Generate a series of prompts to an operator to lead the operator sequentially through an imaging procedure (figure 6 through 16 where the means for guiding is web pages, entering data into a field is considered guided entry and the entered data represents non-functional descriptive information).

It would have been obvious to one of ordinary skill in the art at the time of the invention to add this feature into Vosniak in view of Robart. One of ordinary skill in the art at the time of the invention would have added this feature into Vosniak in view of Robart

- The elements are all known but not combined as claimed. The technical ability exists to combine the elements as claimed and the results of the combination are predictable. When combined, the elements <u>perform the same function as they did separately</u>.

- with the motivation to have information for servicing of particular diagnostic systems and for tracking such servicing, as well as for deriving comparison data for use in servicing a particular system or a family of systems (Koritzinsky, column 6, lines 24 - 49).

51.   As per claim 34, Vosniak in view of Robarts teaches the system of claim 26 as described above.

Vosniak in view of Robart does not explicitly teach the system wherein the computer is further programmed to:

- <u>For each scanner, automatically generate a digital log book by collecting entered patient information and scan information for each patient examined by the corresponding scanner</u>.

However, Koritzinsky further teaches the system wherein the computer is further programmed to:

- For each scanner, automatically generate a digital log book by collecting entered patient information and scan information for each patient examined by the corresponding scanner (column 9, lines 46 – 64 where the data stored in the log file is non-functional descriptive information).

It would have been obvious to one of ordinary skill in the art at the time of the invention to add

this feature into Vosniak in view of Robart. One of ordinary skill in the art at the time of the

invention would have added this feature into Vosniak in view of Robart

- The elements are all known but not combined as claimed. The technical ability exists to

   combine the elements as claimed and the results of the combination are predictable.

   When combined, the elements perform the same function as they did separately.

- with the motivation to have information for servicing of particular diagnostic systems and

   for tracking such servicing, as well as for deriving comparison data for use in servicing a

   particular system or a family of systems (Koritzinsky, column 6, lines 24 - 49).

52.   *Claim 36 is* rejected under 35 U.S.C. 103(a) as being unpatentable over Vosniak et al.,

U.S. Pre-Grant Publication 2004/ 0020898 in view of Robarts et al., U.S. Patent 7,073,129 as

applied to claim 26 above, further in view of Debbins et al., U.S. Pre-Grant Publication 2002/

0060566, Agfa, "Informatics – IMPAX DS3000), Wright et al., U.S. Patent 6,004,276, Bitter et

al., U.S. Pre-Grant Publication 2005/ 0228250, Koritzinsky et al., U.S. Patent Number 6,272,469.

53.   As per claim 36, Vosniak in view of Robarts teaches the system of claim 26 as described

above.

Vosniak in view of Robarts does not explicitly teach the system wherein the computer is further

programmed to:

- Automatically commence post-processing during data acquisition in accordance with types and format of images most commonly generated for the selected examination protocol; and

- Search the hospital archive database for images of the patient currently undergoing examination and routing the archive patient images directly to the display terminal of a diagnosing radiologist, automatically without waiting for a transfer request; and

- Search the hospital archive database to determine if a current scan is a follow-up scan, determining parameters and examination protocols used in prior scans, and setting the scanner to conduct the follow-up examination using the same parameters and examination protocols; and

- Search the hospital archive database to determine preferences of a diagnosing radiologist and adjust level, zoom, slice and slab thicknesses, windowing, and other display characteristics in accordance with the retrieved preferences of the diagnosing radiologist; and

- Generate a series of prompts to an operator to lead the operator sequentially through an imaging procedure.

- For each scanner, automatically generate a digital log book by collecting entered patient information and scan information for each patient examined by the corresponding scanner; and

- At the beginning of a scan procedure, automatically upload examination protocol information previously submitted from a remote computer or PDA.

However, Debbins further teaches the system wherein the computer is further programmed to:

- Automatically commence post-processing during data acquisition in accordance with types and format of images most commonly generated for the selected examination protocol (paragraphs 9, 94) ; and

However, Agfa further teaches the system wherein the computer is further programmed to:

- Search the hospital archive database for images of the patient currently undergoing examination and routing the archive patient images directly to the display terminal of a diagnosing radiologist, automatically without waiting for a transfer request (IMPAC DS3000 Diagnostic Display Station); and

- At the beginning of a scan procedure, automatically upload examination protocol information previously submitted from a remote computer or PDA (Agfa, IMPAC DS3000 Diagnostic Display Station).

However, Wright further teaches the system wherein the computer is further programmed to:

- Search the hospital archive database to determine if a current scan is a follow-up scan, determining parameters and examination protocols used in prior scans, and setting the scanner to conduct the follow-up examination using the same parameters and examination protocols (column 1, line 66 through column 2, line 6); and

However, Bitter further teaches the system wherein the computer is further programmed to:

- Search the hospital archive database to determine preferences of a diagnosing radiologist and adjust level (paragraph 38, level), zoom (paragraph 38, zooming), slice and slab thickness (paragraph 49, user controls and paragraph 61, thickness), windowing

(paragraph 38, window adjustment), and other display characteristics in accordance with the retrieved preferences of the diagnosing radiologist (paragraph 38 and 89); and

However, Koritzinsky further teaches the system wherein the computer is further programmed to:

- Generate a series of prompts to an operator to lead the operator sequentially through an imaging procedure (figure 6 through 16 where the means for guiding is web pages, entering data into a field is considered guided entry and the entered data represents non-functional descriptive information).

- For each scanner, automatically generate a digital log book by collecting entered patient information and scan information for each patient examined by the corresponding scanner (column 9, lines 46 – 64 where the data stored in the log file is non-functional descriptive information); and

It would have been obvious to one of ordinary skill in the art at the time of the invention to add this feature into Vosniak in view of Robarts. One of ordinary skill in the art at the time of the invention would have added this feature into Vosniak in view of Robarts

- The elements are all known but not combined as claimed. The technical ability exists to combine the elements as claimed and the results of the combination are predictable. When combined, the elements perform the same function as they did separately.

- With the motivation to provide data processing steps for image reconstruction that can be graphically modified in real time to modify or improve both collected and visualized data (Debbins, paragraph 9).

- With the motivation to create high a degree of workflow automation so that when the
  radiologist needs to review images or results, they are readily available (Agfa, IMPAC
  DS3000 Diagnostic Display Station).

- With the motivation to allow the user to access the product specific functionality
  delineated in the appropriate product specification (Wright, column 63, lines 36 -55).

- With the motivation to display medical images and enable user interaction with the
  medical images (Bitter, paragraph 7).

- with the motivation to have information for servicing of particular diagnostic systems and
  for tracking such servicing, as well as for deriving comparison data for use in servicing a
  particular system or a family of systems (Koritzinsky, column 6, lines 24 - 49).

- The Examiner notes that the modules within claim 36 are not inter-related but rather are
  claimed as separate modules within a CT Workstation. As all the modules were known
  in the art, the combination of these known modules would produce predictable results.

Response to Arguments

54.   Request for Reconsideration of the Demand For an EasyVision DX 8.2 manual

The Examiner understands the difference between a scanner and a workstation. However, the
Applicant has not claimed, "the set up and presentation for performing diagnostic imaging scans
to generate images." The Applicant's invention, as claimed, displays stored images that are
associated with a scanner. Therefore, the Examiner agrees that "all functions listed in the
Functionality Matrix are functions commonly performed when handling medical data or images
retrieved from a hospital database." No nexus is required as none is claimed.

55.   The Present Amendment Should be entered

The amendment has been entered and considered. The Examiner appreciates the understanding

of extra headings that were not then needed.

56.   Applicant's arguments, see 35 U.S.C. 112, filed 9/8/2009, with respect to claims 2 – 9, 11

– 22 and 25 and its dependencies have been fully considered and are persuasive. The 35 U.S.C.

112, 2nd paragraph rejections of 2 – 9, 11 – 22 and 25 has been withdrawn.

57.   Applicant's arguments filed 9/8/2009 have been fully considered but they are not

persuasive.

The Applicant's arguments center upon the choosing of protocols and enacting the scanning

procedure based upon the limited protocol. The Applicant has chosen to end his claimed

invention at the displaying of a limited selection of protocols. Therefore, the Applicant

arguments do not match the claimed invention.

The Examiner notes that CT scanners were old and well known and the Applicant does not claim

CT scanners. Further, examination protocols were old and well known and the Applicant does

not claim examination protocols. Filtering data was old and well known and the Applicant is not

claiming the new idea of filtering data.

The Applicant states the process was performed manually, Specification page 2:

     "Many scans require post processing targeted towards specific disease and/or processes.
The permutations and combinations of applications and the distribution of post processing
preferences among the physicians is difficult for a clinical department to organize, leading to
workflow inefficiencies. The operator manually opens correct post processing application.
Currently, some imaging systems open the image processing package associated with the scanner
as the scan is running. However, they wait for user input to activate the package and select the
images to be produced.

Regarding archival, a paper log is maintained for each patient and each scanner regarding the number of scans, how the scanner is used, and other such information which is very inefficient and time-consuming.

Typically the physicians are requested to make a number of measurements during scans. Currently, the hospital personnel uses a piece of paper with a list of measurement descriptions. To record each measurement the user must take his hand off the mouse/keyboard and write the result down. Moreover, returning to a measurement that it has been already made is not possible and a new measurement must be taken. This all is very time consuming.

To record each measurement the user must take his hand off the mouse/keyboard and write the result down. Moreover, returning to a measurement that it has been already made is not possible and a new measurement must be taken. This all is very time consuming.

To summarize, using current day procedures, hospitals are only able to examine about thirty patients per day with the newest sixteen slice CT scanners. In order to justify the cost of this equipment, the hospitals want to process fifty patients per day."

The Examiner has not chosen to invoke the idea of *In re Venner*, 262 F.2d 91, 95, 120 USPQ

193, 194 (CCPA 1958).   However, the Applicant further states:

"There is a need for an automated mechanism that will optimize the scanning workflow. The present invention provides a new and improved apparatus and method which overcomes the above-referenced problems and others."

Conclusion

58.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to NEAL R. SEREBOFF whose telephone number is (571)270-

1373. The examiner can normally be reached on Mon thru Thur from 7:30am to 5pm, with 1st

Fri off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Luke Gilligan can be reached on (571) 272-6770. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/N. R. S./
Examiner, Art Unit 3626
9/23/2009

/C. Luke Gilligan/
Supervisory Patent Examiner, Art Unit 3626